# University of Technology, Sydney


## Audit Pricing – An Analysis of Spatial Oligopolistic Competition Theory


Author: Ming Wu

Supervisors: Professor Donald Stokes
Dr. Jane Hamilton


*A thesis submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy in Accounting*

*Dec. 2006*

# CERTIFICATE OF AUTHORSHIP/ORIGINALITY

I certify that the work in this thesis has not previously been submitted for a degree nor has it been submitted as part of requirements for a degree except as fully acknowledged within the text.

I also certify that the thesis has been written by me. Any help that I have received in my research work and the preparation of the thesis itself has been acknowledged. In addition, I certify that all information sources and literature used are indicated in the thesis.

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# ACKNOWLEDGMENTS

First and foremost, I would like to express my gratitude to my supervisors, Professor Donald Stokes and Dr. Jane Hamilton, for all of their support, advice, encouragement, understanding and patience during my research for this thesis. I appreciate Professor Donald Stokes for his vast knowledge and logical way of thinking which have been of great value for me, his assistance in writing reports (i.e., scholarship applications, Doctoral Colloquium report, the Alice language project and this thesis), and the thorough explanations and suggestions he gave me whenever I was in need. Appreciation also goes out to Dr. Jane Hamilton who made very detailed and constructive comments on all aspects of the thesis.

I would like to thank Professor Gordon Richardson for his helpful comments and suggestions and Professor Dan Simunic, Professor Terry Shevlin, Professor S.P. Kothari for their encouragement to pursue this research. I would also like to thank the 2005 AFAANZ Doctoral Colloquium audit group participants and colleagues at the University of Technology, Sydney (UTS) for their helpful suggestions and discussions.

I am grateful to the staff and my classmates in the School of Accounting, UTS for their support and their friendship; especially thanks to Dr. David Brown, John Tyler, Dr. Peter Vassallo, Nicolas Gambetta, Yang Li, Liwei Jiang, Joanna Masangkay, Min Bian and Tingting Zhu.

I acknowledge the financial support provided by the Capital Market Cooperative Research Centre (CMCRC), School of Accounting at UTS and UTS and the access given to the CMCRC-UTS Audit Market Research Database.

Finally, I would like to express my deepest gratitude to my parents for their constant support, understanding and love that I received through my entire life. In addition, I must acknowledge my Aunty Lisa, Uncle Lin and Cousin Jason, without their support and encouragement it would have been impossible for me to finish my undergraduate degrees and this PhD thesis in Australia.

# ABSTRACT

This thesis applies spatial oligopolistic competition theory developed in Chan, Ferguson, Simunic and Stokes (2002) to analyse Big n audit firm pricing. The extant audit pricing studies have typically analysed audit service competition by grounding the audit pricing model in a perfect vs. monopoly competition theory which assumes that audit firms earn economic rents through product differentiation (e.g., Simunic 1980; Craswell, Francis and Taylor 1995; Ferguson, Francis and Stokes 2003). The spatial competition theory suggests that the traditional competition theory ignores the strategic interaction among closely competing audit firms. Under the spatial competition theory, audit firms are allowed to price discriminate and audit fees depend upon the specialization of the closest competitor. In equilibrium, audit firms gain market power by strategically choosing specialization sets that are different from their competitors to retain some distance from the closest competitor, and thus compete in pricing to earn "local" economic rents. This thesis extends the work of the two prior empirical studies of the spatial competition theory to examine whether Big n audit firms earn rents as "local monopolists" and investigate the impact of Arthur Andersen's (AA) merger with Ernst & Young (EY) on Big n audit pricing in the Australian audit services market.

This thesis develops spatial audit pricing models using a spatial group indicator variable and a spatial ratio variable to capture the effects of the spatial distance between a client and its next closest competing auditor compared to the spatial distance between the client and its incumbent auditor. Using the data for clients of Big n auditors in the 5 Australian city offices (i.e., Sydney, Melbourne, Perth, Brisbane and Adelaide) across all years from 1998 to 2004, the results show that the spatially closer a client is to its incumbent Big n auditor's specialization compared to its next closest competing Big n auditor, the higher the audit fees charged to the client. Stronger support for the hypotheses is provided after controlling for the number of the incumbent auditor's competitors in client industries. In particular, these results are more apparent in the lower client concentrated industries where clients do not suffer from aversion to appointing specialist auditors. These results imply that client industry characteristics are important spatial attributes considered by audit firms when making strategic specialization investments to earn "local" economic rents. Additional findings show that these results are also statistically more apparent in the small client segment of audit markets. The results of the tests of the impact of AA's merger with EY on Big n audit pricing offer limited support for the view that audit fees will increase for clients of the merged audit firm where the merger eliminates the predecessor audit firms' closest competitor for those clients. Overall, the results provide support for Chan et al.'s (2002) alternative interpretation of strategic competition among the Big n audit firms.

Key words: Spatial oligopolistic competition, auditor specialization, audit pricing, strategy, Arthur Andersen's merger with Ernst & Young

# TABLE OF CONTENTS

**CHAPTER 1**

**INTRODUCTION**



**CHAPTER 2**

**THE ECONOMIC THEORY OF DEMAND FOR AUDITING**



**CHAPTER 3**

**AUDITOR SPECIALIZATION UNDER SPATIAL OLIGOPOLISTIC COMPETITION THEORY**

## CHAPTER 4
## HYPOTHESIS DEVELOPMENT AND RESEARCH DESIGN

## CHAPTER 5
## EMPIRICAL RESULTS

## CHAPTER 6
## CONCLUSIONS



## LIST OF TABLES